USER MANUAL

Version 1.06 - June 2014

Xfly Streamer

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Regional Contacts

The address and phone number of the EVS headquarters are usually mentioned in the Help > About menu in the user interface.

You will find the full list of addresses and phone numbers of local offices either at the end of this user manual (for manuals on hardware products) or at the following page on the EVS website: http://www.evs.com/contacts.

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What's New?

In the user manual the icon NEW ! has been added on the left margin to highlight information on new and updated features.

The sections updated to reflect new and modified features in XFlyStreamer 1.06 (compared to version 1.04) are listed below.

TwinRec feature

The server TwinRec feature can be used with XFlyStreamer to double the number of feeds streamed to storage destinations.

- See section "TwinRec Feature" on page 2.
- See section "Overview of the XFlyStreamer Window" on page 10.
- See section "Setting the Auto Filename" on page 20.
- See section "Selecting the Recorder Channels" on page 23.
- See section "Display of Channels Area" on page 26.
- See section "Introduction" on page 28 (Stream Recording).

New option to set the AVID Clip Name Format String

- See section "Defining the Metadata Type and Related Parameters" on page 17

1. Introduction

1.1. Product Overview

XFlyStreamer is a software dedicated to the backup of streams from one or several EVS video servers (XT2, XT2+, XT3, XS, XTnano). XFlyStreamer manages the backup and transfer of all streams selected by the operator.

This manual describes the configuration interface, which is easy to use and straightforward.

XFlyStreamer acts as a user interface for the Xsquare/XTAccess file transfer application running in the background. XFlyStreamer sends its commands to Xsquare using the SOAP jobs files.

Please refer to the Xsquare Suite documentation for detailed instructions about this application.

We recommend to install the XFlyStreamer user interface on the same computer as the Xsquare/XTAccess file transfer application, so that Xsquare Suite is dedicated to XFlyStreamer and is not used by any other application.

Note
Xsquare/XTAccess is restricted to file transfer with wrapping when required, but cannot perform any format transcoding.

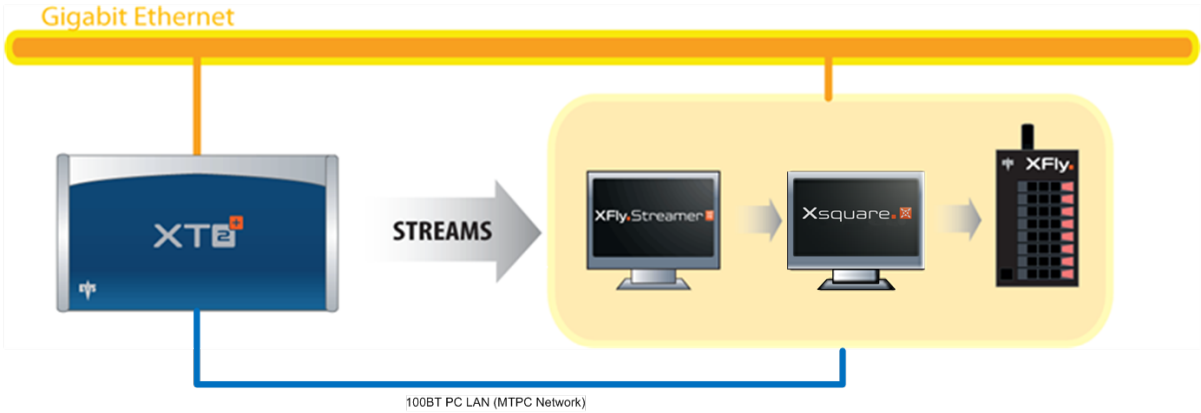
XFlyStreamer is able to communicate only with one single Xsquare application at a time, but it manages the backup of streams from multiple EVS servers to several XFly storage devices.

XFlyStreamer creates SOAP files corresponding to the backup of streams, grabs jobs requested by the operator, and sends these files to the local Xsquare application.

1.2. Network Architecture Description

XFlyStreamer must be installed on the same computer as the Xsquare/XTAccess applications. The streams to be archived are located on one or several servers and storage units connected to the same network. Two networks are used for the various communications and the transfer of files, as illustrated below. Physically, these networks can be one and the same, or separate for the sake of performance:

- The MTPC network is used to detect EVS servers, to identify them, and to transfer the list of recorder channel sources to be backed up.
- The HCTX network is used to transfer the streams data between the XFlyStreamer and Xsquare/XTAccess computer, the EVS servers and the storage unit.



1.3. TwinRec Feature

NEW ! Introduction

TwinRec is a feature of EVS servers allowing the use of both recorder channels of each codec module. Therefore, used with XFlyStreamer, it doubles the amount of ingested feeds which are streamed to external storage.

Limitations

The use of the TwinRec feature is subject to some limitations.

- It is only available with XS 6U and XT3 6U.
- It is only available in HD.
- It is only available with intra-frame codecs.
- Both channels of a codec module are linked as a pair.
- The feature does not allow an independent control of the recorder channels from a pair.

- Both channels from a pair share the same audio. The audio is only recorded on the main channel and, when a feed is streamed to an external storage, Xsquare duplicates the audio to the secondary channel.
- Only the main channel of a pair can be monitored on the EVS server multiviewer.

For a complete list of limitations, please refer to the EVS server configuration manual.

2. Installation

2.1. Hardware and Software Requirements

The guidelines for the minimum software and hardware requirements are:

- OS: Windows 7 64-bit
- Software: Framework .NET 4.0
- Motherboard: I5 660 - 3.3 GHz dual core
- DRAM: 4 GB (1 GB shared with graphic card)
- Graphic: Chipset Intel G965 Express or equivalent dedicated graphic card (Nvidia/AMD)

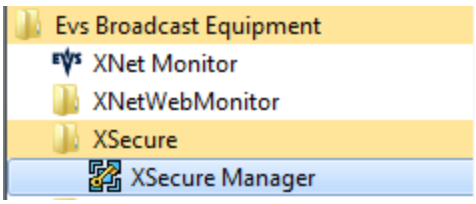
2.2. Activating the XSecure Licenses

The XFlyStreamer require XSecure software licenses.

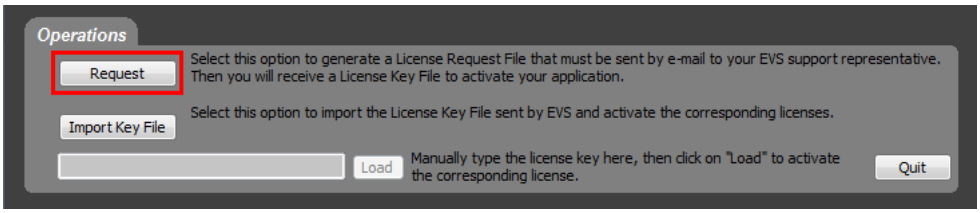
The XSecure application is included in the installation package to allow you to install XSecure shouldn't it already be installed.

To activate the required licenses in XSecure, proceed as follows:

1. In the **Start** menu, select **Evs Broadcast Equipment > XSecure > XSecure Manager** to launch the XSecure application:

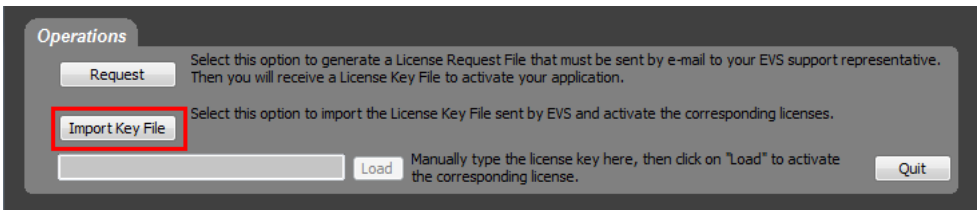


2. In XSecure, fill in the Customer Information area and click the **Request** button in the **Operation** area at the bottom of the main window.


Operations
Request
Select this option to generate a License Request File that must be sent by e-mail to your EVS support representative. Then you will receive a License Key File to activate your application.
Import Key File
Select this option to import the License Key File sent by EVS and activate the corresponding licenses.
Load
Manually type the license key here, then click on "Load" to activate the corresponding license.
Quit

3. Store the .xml file generated by XSecure on your desktop and send it to the EVS Support specifying which new license codes or license code extensions you need.

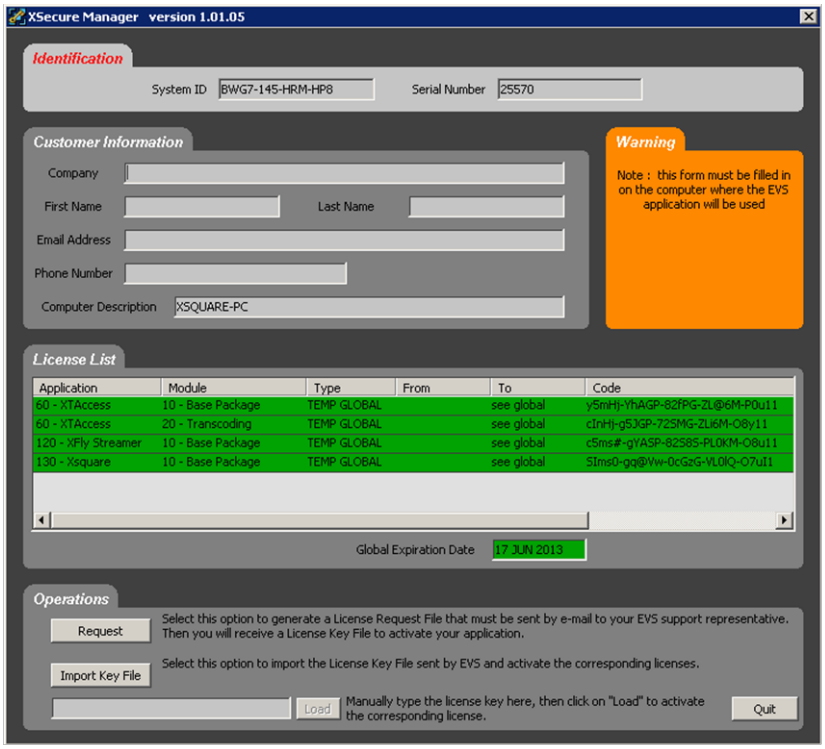
4. When you receive the .xml file containing the license codes or code extensions that you have requested from the EVS Support, copy that file in a directory visible by the XSecure Manager setup (using a USB key for instance, or your LAN network)
5. Open XSecure and click the **Import Key File** button in the **Operation** area:


Operations
Request
Select this option to generate a License Request File that must be sent by e-mail to your EVS support representative. Then you will receive a License Key File to activate your application.
Import Key File
Select this option to import the License Key File sent by EVS and activate the corresponding licenses.
Load
Manually type the license key here, then click on "Load" to activate the corresponding license.
Quit

6. Select the file you have received and click **Open**.

The license codes will be automatically imported into XSecure, and a dialog box will confirm how many license codes have been successfully imported.

The new license module is displayed in the **License List** area in XSecure.

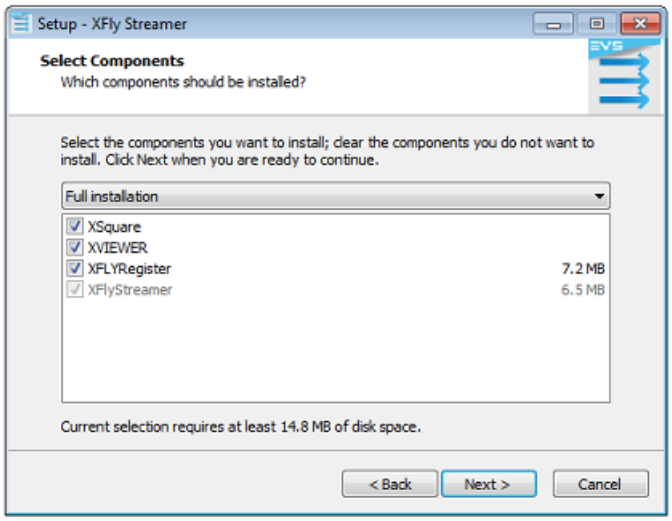


Note
Modifying NIC configuration (for example, Port teaming) will invalidate your software license. Please contact EVS support to generate a new key according to your new configuration.

2.3. Installation Procedure

To install XFlyStreamer, proceed as follows:

1. Double-click the XFlyStreamer installer, and follow the steps of the setup wizard.
2. Click **Next** to continue.
3. Select **I accept the agreement** and click **Next**.
4. Browse to an installation folder destination and click **Next**.
5. Browse to a folder where to save the AV files and data (for instance, drive S: for XFLY device), and click **Next**.
6. Select the components to install, and click **Next**:
   - XFLYRegister: detection of XFly box via Bonjour protocol
   - Xsquare suite (Recommended)
   - XViewer application for A/V preview
   - (DB maintenance script)


Setup - XFly Streamer
Select Components
Which components should be installed?
Select the components you want to install; clear the components you do not want to install. Click Next when you are ready to continue.
Full installation
XSquare
XVIEWER
XFLYRegister 7.2 MB
XFlyStreamer 6.5 MB
Current selection requires at least 14.8 MB of disk space.
< Back
Next >
Cancel

7. Select the Start Menu folder in which the application shortcuts will be saved, and click **Next**.
8. Select, or not, the desktop icon creation, and click **Next**.

   All components and related tasks/options are ready to be installed.
9. Click **Install** to start the installation.

   All files are installed in silent mode.

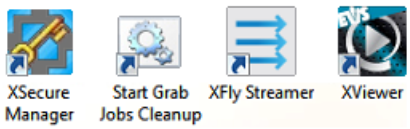
   The installation process continues with the BONJOUR services installation, with the .NET Framework 4, the XFLY registration to Bonjour protocol, and then with Xsquare Suite installation.

   Refer to Xsquare suite documentation for detailed information of all its components.

10. To complete the XFlyStreamer installation, the computer needs to be rebooted. Click **Finish**.

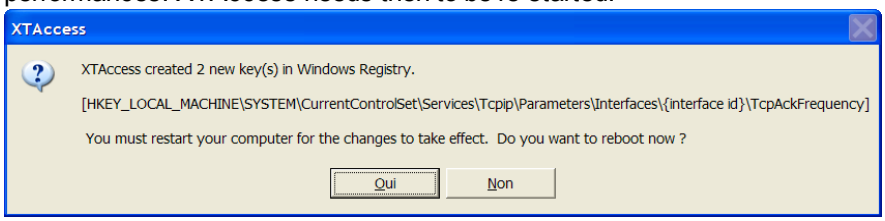
Setup - XFly Streamer
XFly.Streamer
Completing the XFly Streamer Setup Wizard
To complete the installation of XFly Streamer, Setup must restart your computer. Would you like to restart now?
Yes, restart the computer now
No, I will restart the computer later
Finish

After the installation, the following shortcuts are added to your desktop:



Xsquare and XTAccess are automatically associated. All Xsquare services are started.

Note
When you first start XTAccess, the application modifies or adds the TcpAckFrequency key in the Windows registry. This key allows better backup performances. XTAccess needs then to be re-started.

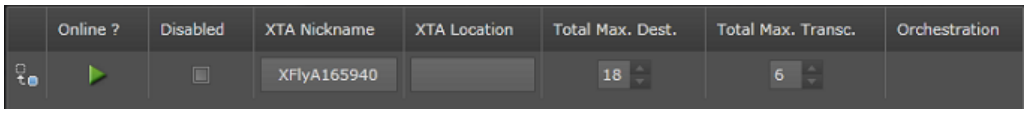

XTAccess
XTAccess created 2 new key(s) in Windows Registry.
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters\Interfaces\{interface id}\TcpAckFrequency]
You must restart your computer for the changes to take effect. Do you want to reboot now ?
Oui
Non

3. Configuration of Xsquare

3.1. Configuration of Local Xsquare/XTAccess

The installer sets up automatically all software and components, therefore no additional setting is required prior to operate XFlyStreamer.

The following parameters of the local Xsquare have been modified during the installation process:



Total Max. Destinations is set to 18 in order to operate both NanoAir and XFlyStreamer applications.

Total Max. Transcodings is set to 6 in order to allow import facilities with NanoAir application and Proxy file generation on XFlyStreamer.

The following folders are automatically created and shared with full permissions:

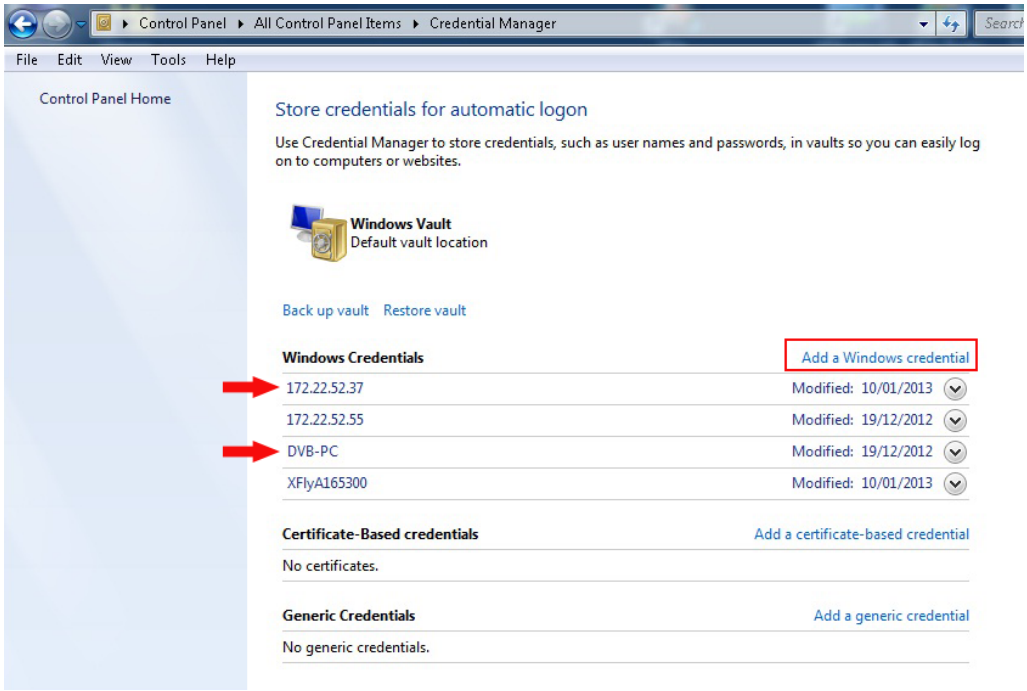
- \\grab and \ima folders to collect the images needed to display the thumbnails. These folders are in hidden mode.
- \\xfly_streamer\AV_files folder to collect the audio/video files.

The local XTAccess software is automatically launched each time XFlyStreamer is started and XTAccess is minimized in the Task bar. Therefore, XFlyStreamer is ready to operate.

3.2. Configuration of Remote Xsquare/XTAccess

In order to work properly with Xsquare/XTAccess installed on a remote system, you have first to set the Xsquare parameters and to create the shared folders as described in section "Configuration of Local Xsquare/XTAccess" on page 8. Then, you have to define Windows credentials, to log on automatically to the remote computer.

Select **Control Panel > User Accounts and Family Safety > User Accounts > Manage your credentials:**

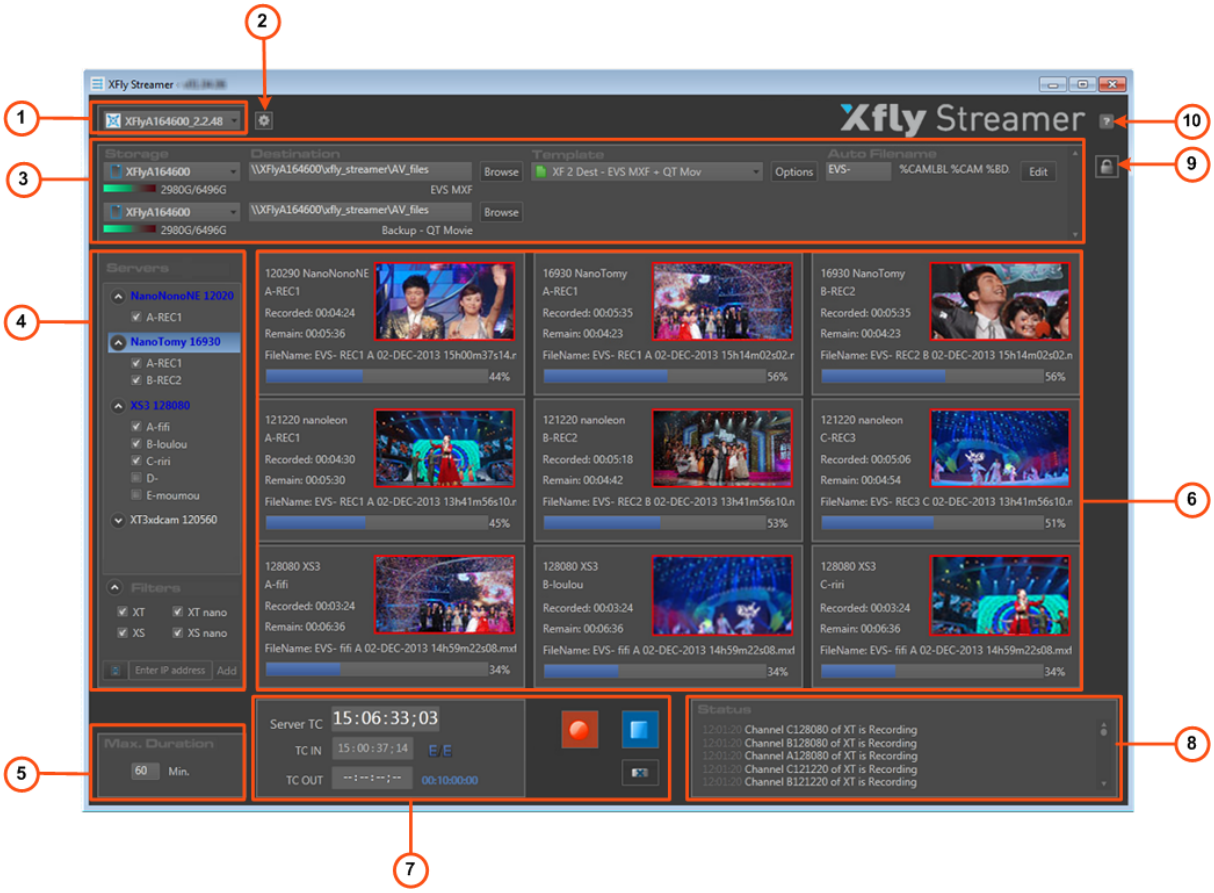


Click **Add a Windows credential**, and fill the remote computer address, user name and password fields. For each remote system, two credentials must be added: one with the IP address, the other with the machine name.

4. Overview of the XFlyStreamer Window

Illustration

The XFlyStreamer window contains the areas highlighted on the screenshot below:



Area Description

The various parts of the XFlyStreamer window are described below

Area		Description
1.	Processing Device Area	This area is used to select the Xsquare device to process the different tasks for grabbing thumbnails and for recording streams. See section "Selecting the Processing Device" on page 12.
2.	Settings Button	This button gives access to the Xsquare User Access window. See section "Selecting a List of Xsquare Templates" on page 14.

Area		Description
3.	Storage Device and Settings	This area is used to select the device (XFly) where the A/V files will be stored, to set the file destination folder, to set the A/V file format and the auto naming pattern. See sections "Selecting the Storage Device and the Destination Path" on page 12, "Selecting and Modifying a Job Template" on page 14 and "Setting the Auto Filename" on page 20. Several lines can be displayed to back the files up to several destinations, for redundancy purpose. See section "Redundancy of Streamed Files" on page 20.
4.	Servers List and Filters	This area displays the list of all servers detected on the network. It is used to select the servers and their camera angles to be streamed. The recorder channels of EVS servers set in TwinRec mode will automatically be displayed in the Servers list as pairs of channels. See section "Servers List and Recorder Channels" on page 22. A Filters area is available to select the family(ies) of servers to display. See section "Filters for the Servers List" on page 25.
5.	Maximum Duration	This area allows users to set the maximum duration for recording by direct entry. The value can be modified during the recording. It can be set from 1 to 300 minutes.
6.	Channels Area	This area shows streaming information for the server recorder channels selected in the Servers list. See section "Display of Channels Area" on page 26.
7.	Stream Recording Commands	This area displays the timecode reference and the commands to set, schedule, start and stop the recordings. See section "Stream Recording Commands" on page 28.
8.	Status Area	This area provides information on the actions performed on the system and on the potential problems.
9.	Lock Button	The **Lock** button is used to lock the whole interface. So, no action can be performed, except unlocking the interface by clicking the **Unlock** button .
10.	Help Button	This button gives access to the About window. This window provides information about the XFlyStreamer version and about technical support contact. It contains a link to the user manual.

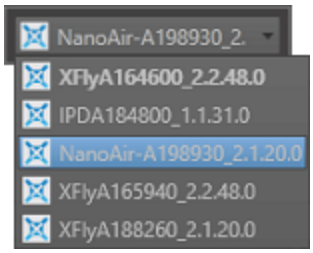
Note
On the top left of the window, the caption bar mentions the application name and the version number.

5. Configuration of XFlyStreamer

5.1. Selecting the Processing Device

The Xsquare which has to process the different tasks for grabbing thumbnails and for recording streams is selected from the Processing Device area.

The drop-down list provides the list of all Xsquare detected on the local network via the Bonjour protocol.



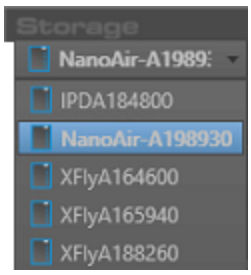
Tip
The local Xsquare is always displayed with bold letters.

5.2. Selecting the Storage Device and the Destination Path

Storage Device

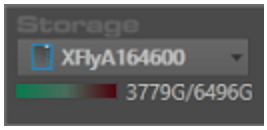
The device (i.e. the XFly) where the recorded streams will be stored is selected from the Storage area.

At start-up, XFly systems are detected on the local network thanks to the Bonjour protocol. Those storage locations are listed in the Storage area drop-down list.

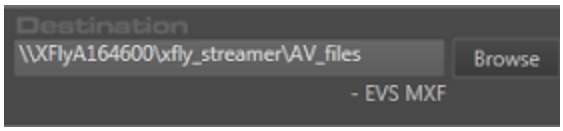


Tip
The local storage device is displayed with bold letters in the list.

Once a storage device is selected, its capacity information is written as follows: remaining capacity / total capacity. This is given by the SNMP protocol.



Destination Path



The **Destination** field specifies the path where the streamed files will be saved, for all the selected channels.

It may not be left empty. It can be selected by clicking the **Browse** button.

A description is displayed under the **Destination** field. It relates to the wrapper type of the template selected in the **Template** field.

The files can be saved to shared folders only.

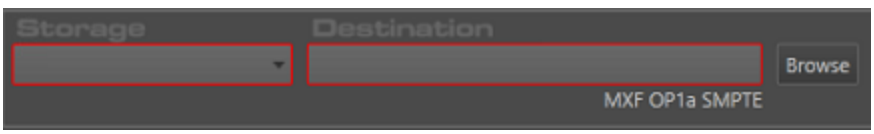
Storage and Destination Displayed

The **Storage** field and the **Destination** field are mutually dependent.

- At first start up of XFlyStreamer, the local storage device is detected and displayed in the **Storage** field. Its default path is displayed in the **Destination** field.

  The default destination path is written as follows:

  \\Machine_Name\xfly_streamer\AV_files
- As soon as another storage device is selected in the **Storage** field, its default path is displayed in the **Destination** field.
- If another destination path from the same storage device is selected, the **Storage** field does not change.
- If a destination path from another storage device detected by the Bonjour protocol is selected, the **Storage** field is updated with the corresponding storage device name.
- If a destination path from another storage device not detected by the Bonjour protocol is entered in the **Destination** field, the **Storage** field is left empty.
- The parameters are memorized and will be displayed at next start up.
- If the destination path previously entered related to an undetected storage device, the **Storage** field and the **Destination** field are left empty and are surrounded with a red frame:



Several lines with Storage and Destination areas may be displayed if the selected template has been configured to back files up to more than one destination path. See section "Redundancy of Streamed Files" on page 20.

5.3. Selecting and Modifying a Job Template

5.3.1. Introduction

The **Template** field is used to select a job template that specifies the job process to be done by the processing device.

Job templates are defined in Xsquare. A set of templates specifically dedicated to XFlyStreamer usage is also available from Xsquare.

As soon as an Xsquare processing device is selected in the **Processing Device** field, the list of templates defined for XFlyStreamer in this Xsquare is available by clicking the arrow next to the **Template** field. See section "Selecting a List of Xsquare Templates" on page 14 to know how to have access to other Xsquare templates.

At first start-up, the default template displayed is MXF OP1a SMPTE (single destination).

At next start up, the last template selected will be displayed.

Note
If a destination path is defined in the selected Xsquare template, XFlyStreamer overwrites it with the one entered in the **Destination** field.

5.3.2. Selecting a List of Xsquare Templates

Types of Lists

Two different lists of Xsquare templates can be displayed in XFlyStreamer:

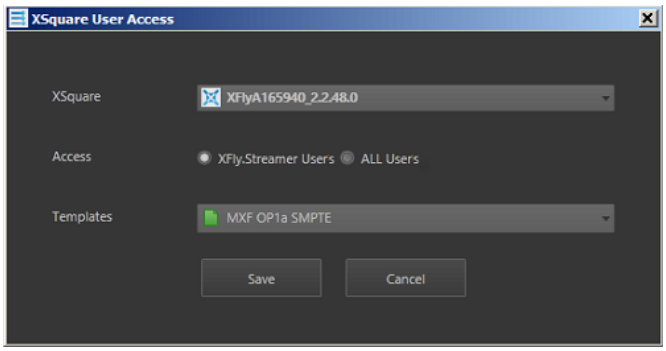
- the list of templates specifically dedicated to XFlyStreamer usage
- the list of all the templates stored on the selected Xsquare.

How to Select the Type of List to Use

To select the list to use, proceed as follows:

1. Click the button.

   The Xsquare User Access window opens:



2. Select the Xsquare to use to process jobs from the **Xsquare** field.

   The list is the same as the one available from the **Processing Device** field, this means all Xsquare detected on the local network via the Bonjour protocol.

3. Select the type of users:
   - **XFlyStreamer User** to get the list of templates specifically dedicated to XFlyStreamer usage,
   - **ALL Users** to get the list of all the templates on the selected Xsquare, including XFlyStreamer templates.

   The corresponding list is displayed in the **Templates** field.

4. Select the template you want to work with from the **Templates** field.

Note
The processing device and the template can also be selected from the main XFlyStreamer window. The Xsquare User Access window is only necessary to set the type of users, and, therefore, to select the type of templates list.

Predefined XFlyStreamer Templates

The templates predefined for the XFlyStreamer use are listed below.

Templates with 1 Destination

- Avid OPAtom + AAF
- Avid OPAtom + Interplay
- Avid OPAtom + Proxy + AAF
- Avid OPAtom + Proxy + Interplay
- Avid OPAtom XDCAMHD + AAF

- Avid OPAtom XDCAMHD + Interplay
- Avid OPAtom XDCAMHD + Proxy + AAF
- Avid OPAtom XDCAMHD + Proxy + Interplay
- EVS MXF
- MXF OP1a IMX (8 audios)
- MXF OP1a SMPTE
- MXF OP1a SMPTE + Adobe XMP for Mac
- MXF OP1a SMPTE + Adobe XMP for Win.
- MXF OP1a XDCAMHD
- MXF OP1a XDCAMHD + Adobe XMP for Mac.
- MXF OP1a XDCAMHD + Adobe XMP for Win
- QuickTime Movie
- QuickTime Movie + FCP XML
- QuickTime Reference
- QuickTime Reference + FCP XML

Templates with 2 Destinations

- XF2DEST Avid OPAtom + AAF
- XF2DEST Avid OPAtom + Interplay + AAF
- XF2DEST Avid OPAtom + Proxy + AAF
- XF2DEST Avid OPAtom + Proxy + Interplay + AAF
- XF2DEST Avid OPAtom XDCAMHD + AAF
- XF2DEST Avid OPAtom XDCAMHD + Interplay + AAF
- XF2DEST Avid OPAtom XDCAMHD + Proxy + AAF
- XF2DEST Avid OPAtom XDCAMHD + Proxy + Interplay + AAF
- XF2DEST EVS MXF + QT Mov
- XF2DEST MXF OP1a IMX (8 audios)
- XF2DEST MXF OP1a SMPTE
- XF2DEST MXF OP1a SMPTE + Adobe XMP for Mac
- XF2DEST MXF OP1a SMPTE + Adobe XMP for Win.
- XF2DEST MXF OP1a XDCAMHD
- XF2DEST MXF OP1a XDCAMHD + Adobe XMP for Mac.
- XF2DEST MXF OP1a XDCAMHD + Adobe XMP for Win
- XF2DEST QuickTime Movie
- XF2DEST QuickTime Movie + FCP XML
- XF2DEST QuickTime Reference
- XF2DEST QuickTime Reference + FCP XML

5.3.3. Defining the Metadata Type and Related Parameters

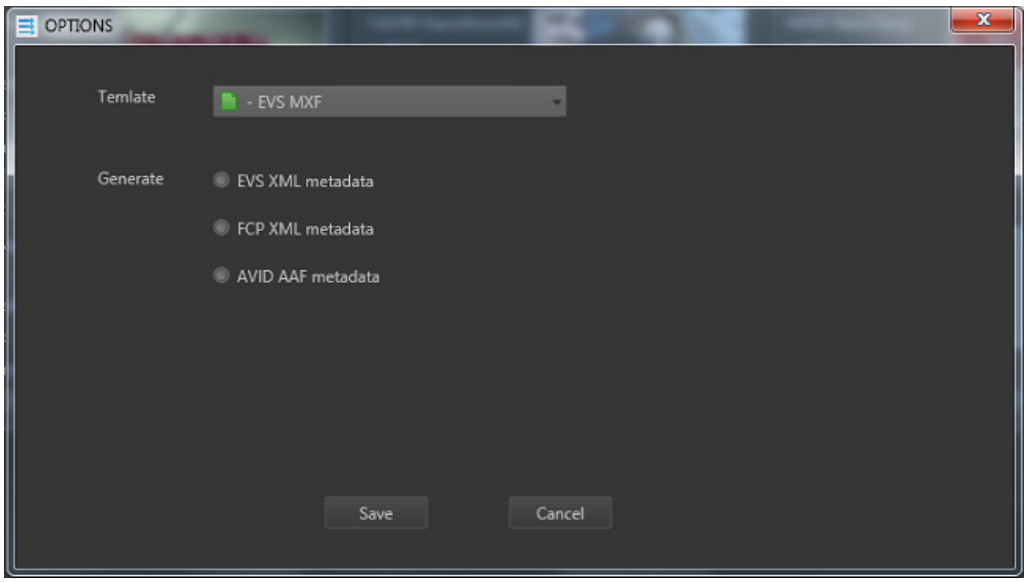
Introduction

Some parameters of XFlyStreamer templates can be modified from the XFlyStreamer interface and the updated template will be saved in Xsquare.

These parameters relate to metadata files.

The **Options** button gives access to parameters for the selected template.

It is available only for XFlyStreamer templates and opens the Options window:



In case several lines of storage devices and destination paths have been displayed, the Options parameters are applied to the first destination only. See section "Redundancy of Streamed Files" on page 20.

EVS XML Metadata

This option is selected to generate an EVS XML metadata. This file can be generated with all wrappers.

FCP XML Metadata

This option is selected to generate an FCP XML metadata file. This file can be generated only when QT Movie or QT Reference wrappers is selected.

QTLocalPath

Selecting the **FCP XML Metadata** option displays an additional parameter: **QTLocalPath**.

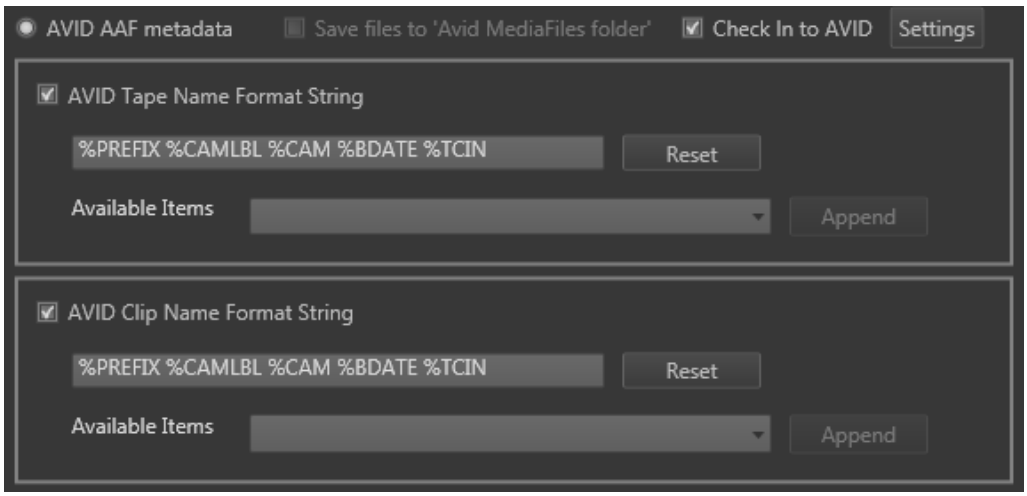
This setting is used to define the folder where the FCP QT files will be sent to, as a local path on the destination machine. It is required to be compatible with MAC OS.

This must have been set as follows: <QTLocalPath>\Volumes</Local Path>. This information will be embedded in the FCP XML file.

AVID AAF Metadata

This option is selected to generate an AVID AAF metadata file. This AAF metadata file can be generated only when AVID MXF OPAtom wrapper is selected.

NEW !

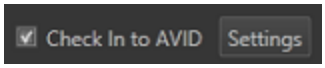


Selecting the **AVID AAF Metadata** option displays additional parameters described below.

Save Files to 'Avid MediaFiles Folder'

Select this parameter to create (and share) the structure of Avid Media Files folders on your local drive (drive S: for XFly device): /Avid MediaFiles/MXF/1. All new Avid MXF OPAtom files will be saved to these folders/sub-folders.

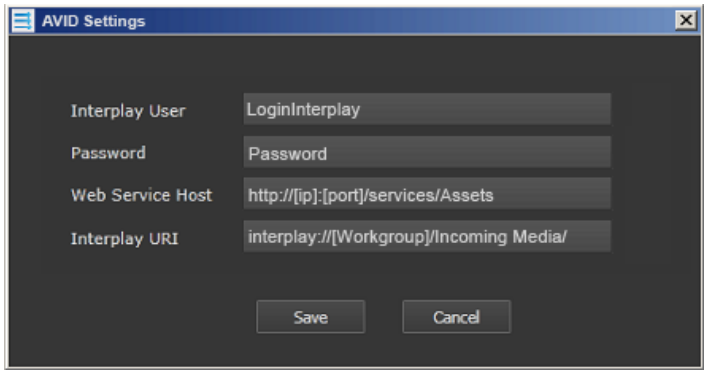
Check In to AVID



This option is used to send MXF OPAtom and metadata files to Avid when Interplay is used.

Selecting this option displays a **Settings** button.

The Interplay parameters are defined by clicking the **Settings** button and filling the fields in the AVID Settings window:



The Interplay URI field is used to define the folder where the MXF OPAtom and metadata files will be transferred to.

AVID Tape Name Format String

Selecting this option ensures that the tape name is saved to the AAF file.

The tape name format string is set as explained for the streamed file name in section "Setting the Auto Filename" on page 20. It is made of selected metadata.

The **%PREFIX** parameter is specific to the tape name format string. It is defined by the user in the **Prefix** field of the Auto Filename area. This ensures that both the A/V filename and the tape name have the same prefix.

The default tape name format string is:

%PREFIX %CAMLBL %CAM %BDATE %TCIN

Warning
The tape name length cannot be longer than 31 characters or it will be cropped to 31 characters in the AAF file.
To ensure the uniqueness of the tape name, it is strongly advised to begin the tape name format string with parameters resulting in unique values.

NEW !

AVID Clip Name Format String

Selecting this option ensures that the clip name is saved to the AAF file.

The clip name format string is set as explained for the streamed file name in section "Setting the Auto Filename" on page 20. It is made of selected metadata.

The **%PREFIX** parameter is specific to the clip name format string. It is defined by the user in the **Prefix** field of the Auto Filename area. This ensures that both the A/V filename and the clip name have the same prefix.

The default clip name format string is:

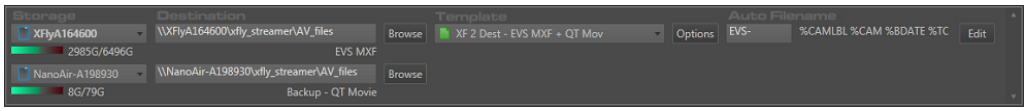
%PREFIX %CAMLBL %CAM %BDATE %TCIN

Warning
The clip name length cannot be longer than 31 characters or it will be cropped to 31 characters in the AAF file.
To ensure the uniqueness of the clip name, it is strongly advised to begin the clip name format string with parameters resulting in unique values.

5.3.4. Redundancy of Streamed Files

Some templates may have been configured to back files up to more than one destination path to ensure file redundancy. Different storage devices may be selected.

When such a template is selected from the **Template** field, as many lines as destinations paths configured are displayed:



In this case, the Options parameters set for the selected template are applied to the first destination only. See section "Defining the Metadata Type and Related Parameters" on page 17.

The auto filename format string is applied to all of the destinations. See section "Setting the Auto Filename" on page 20.

5.4. Setting the Auto Filename

Introduction

The **Auto Filename** area is used to define a filename format string for the streamed files.

A prefix can be defined so all the name of the recorded files will begin with the same prefix until users change it.

The filename is user-defined and can be modified as described below. It is made up of one or several parameters.

The filename format string is memorized between sessions.

The default auto filename format string, with prefix, is: EVS- %CAMLBL %CAM %BDATE %TCIN

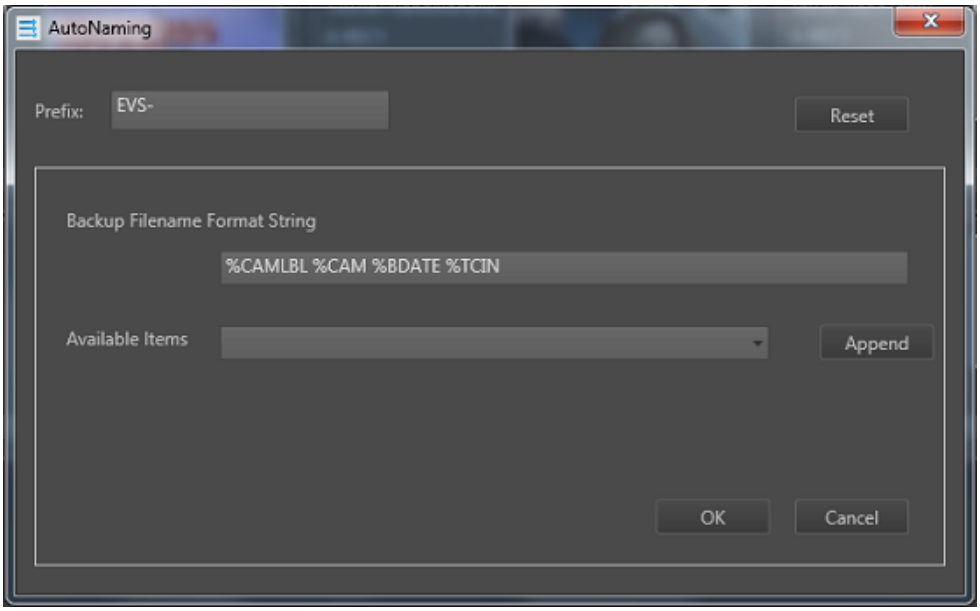
When several destinations have been set in the selected template, the filename format string is applied to all of them. See section "Redundancy of Streamed Files" on page 20.

NEW ! When an EVS server works in TwinRec mode, the streamed files from a pair of recorder will have the same filename, as set in the **Auto Filename** area, followed by **(a)** or **(b)**.

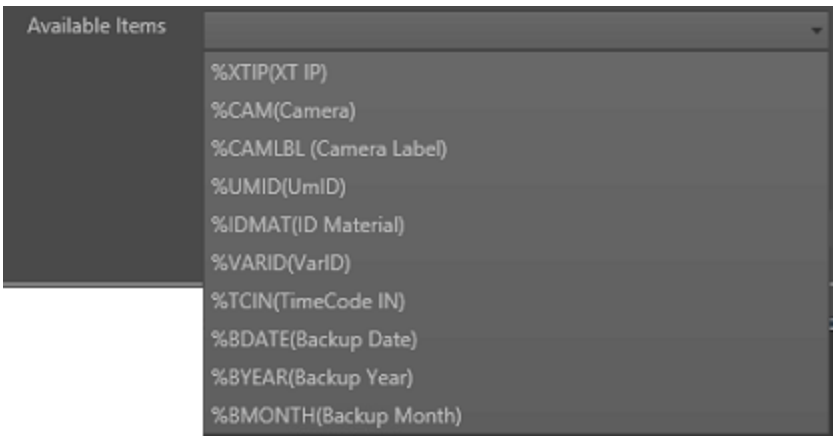
How to Define or Modify the Filename Format String

1. Click the **Edit** button.

   The AutoNaming window opens:



2. If required, modify the prefix by direct entry in the **Prefix** field.
3. In the **Backup Filename Format String** field, delete the part of the string you do not want to keep in the filename, if any.
4. To add information, select an item from the Available Items drop-down list:



5. Click the **Append** button to add the selected item at the end of the field.
6. If needed, modify the position of the items in the field with the cut/paste commands (**CTRL** + **X**, **CTRL** + **V**).
7. If needed, click the **Reset** button to restore the default filename.
8. Click **OK**.

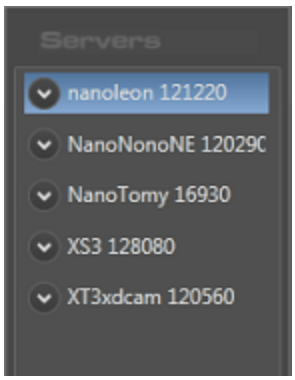
5.5. Selecting and Displaying the Recorder Channels

5.5.1. Servers List and Recorder Channels

Overview

The selection of server recorder channels which record the media to be streamed is done from the Servers list.

At start-up, all available servers found on the network are listed.



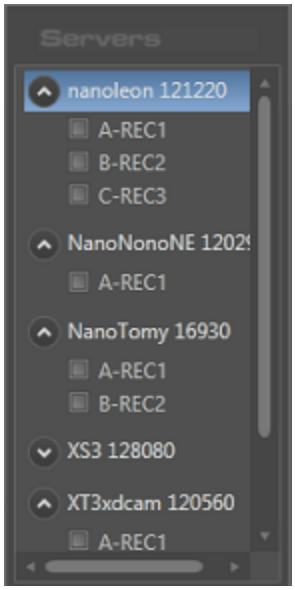
This list is updated regularly and automatically by discovery processes.

However, it is also possible to add a server which could have not been detected by using its IP address. See section "Filters for the Servers List" on page 25.

When the servers list is long, it is possible to reduce the list displayed by applying filters on the server type.

Selecting the Recorder Channels

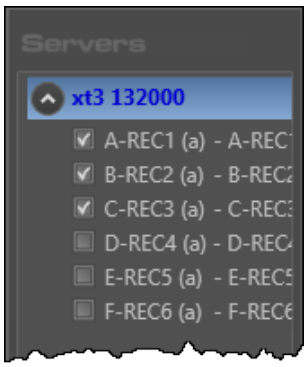
Clicking the arrow next to a server name expand its list of recorder channels and allow users to select the required recorder channels.



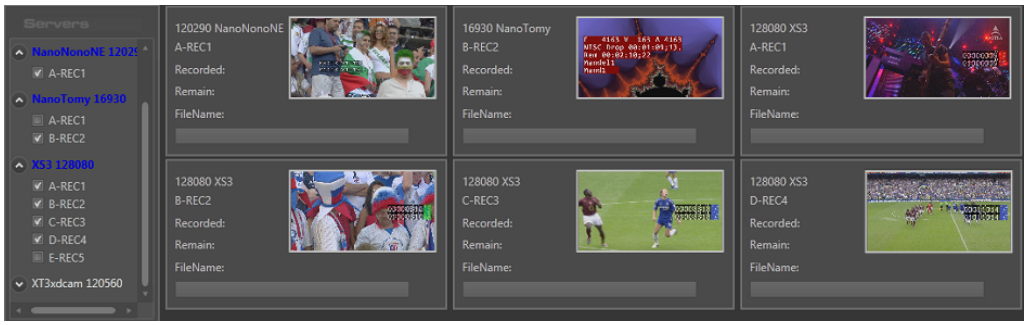
NEW ! When an EVS server works in TwinRec mode, the list shows pairs of recorder channels, each pair corresponding to the two channels of a codec module.

The recorder channels of EVS servers set in TwinRec mode will automatically be displayed in the Servers list as pairs of channels, and they could only be selected by pairs.

Both channels from a pair have the same name, followed by **(a)** or **(b)**. See section "TwinRec Feature" on page 2 for the limitations of the TwinRec feature.



When recorder channels have been selected, the corresponding server names are written in blue in the Servers list and the Channels area provides information for the selected recorder channels:



NEW ! When an EVS server works in TwinRec mode, the selection of a pair of recorder channels results in the display of two rectangles in the Channels area. In this case, channels from a pair have the same name, followed by **(a)** or **(b)**.

See section "Display of Channels Area" on page 26.

Selecting the Server Used for Timecode Reference

The first server selected is used to give the timecode reference for all the jobs.

To select another server for timecode reference, proceed as follows:

1. Right-click the server name in the Servers list.
2. Select the **Select TC Reference** option form the contextual menu.

The server used for TC reference is displayed on a blue background:

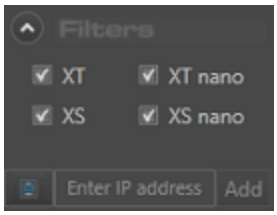
The **Server TC** field is updated.

5.5.2. Filters for the Servers List

Overview

The Filters area can be displayed by clicking the arrow next to **Filters**.

It gives the four families of EVS video servers which can be seen by XFlyStreamer: XT series, XS, XTnano and XSnano. Select one or several server types you want to display in the Servers list.



Several actions are possible from the Filters area.

Selecting One or Several Server Types

To select the types of servers to be displayed in the Servers list, select them in the Filters area. This is useful when the servers list is long, as it will reduce the list of servers displayed.

Adding Another Server

To find a server which could have not been detected and add it to the list, enter its IP address in the **Enter IP address** field and click the **Add** button.

If the server is found, it will be added at the end of the Servers list, even if its type is not selected in the Filters area.

Clearing the Servers List

To clear all the filters and clear the whole servers list, click the button.

Then, you can select the filter(s) and/or the server(s) you wish to work with.

5.5.3. Display of Channels Area

Description

The Channels area is empty when no recorder channel has been selected in the Servers list.

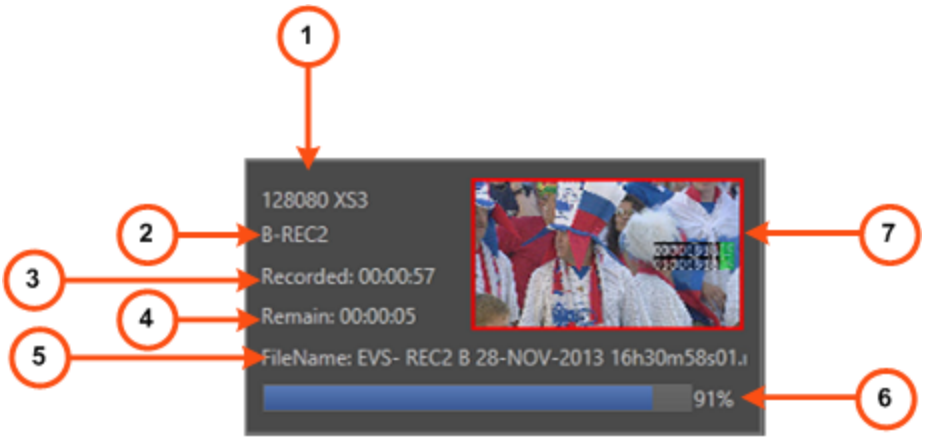
NEW ! As soon as a recorder is selected, some relative information is displayed. For EVS servers set in TwinRec mode, the selection of a pair of recorder channels results in the display of two areas.

Up to 12 channels can be displayed in the Channels area.

As soon as streams are being recorded, the information is updated.

Overview

The Channels area contains the information highlighted on the following screenshot for each selected recorder channel:



#	Area meaning
1.	Server Name and Serial Number.
NEW ! 2.	Recorder channel name, camera name or CamLabel, if available. For pairs of channels of an EVS server in TwinRec mode, **(a)** or **(b)** is added to the name.
3.	Duration of the stream already recorded.
4.	Remaining time to record.
5.	Filename of the backup file, as set in the **Auto Name** field.
6.	Percentage of recorded file.

#	Area meaning
7.	Grabbed thumbnail.
-	**Retry** button: In case an error occurred during the recording, a **Retry** button is displayed in the Channels area for each recorder channel with failed job(s). It allows users to retry the job without stopping or re-starting the other jobs in progress. For pairs of channels of an EVS server in TwinRec mode, clicking one of the **Retry** button automatically starts the Retry process for both channels.

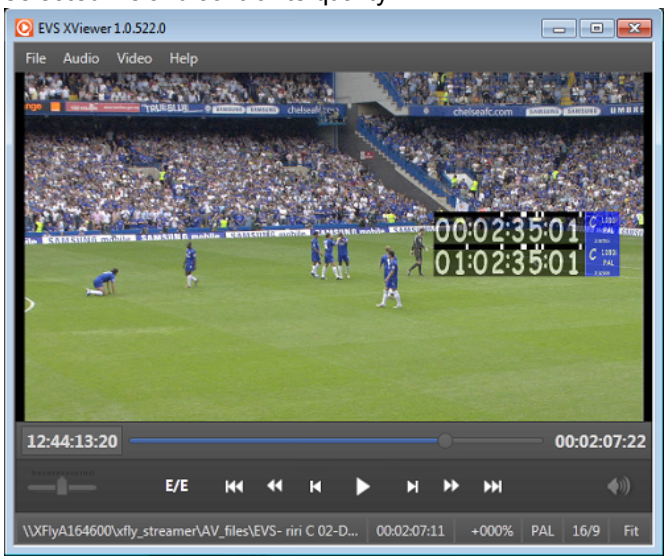
NEW !

Contextual Menu

A contextual menu is available when right-clicking the thumbnail of a recording channel. Each option gives access to a submenu with the list of the files being recorded.

Preview File

Opens the XViewer application, installed together with XFlyStreamer, to preview the selected file and control its quality:



File Path

Displays the destination where the selected file is streamed to.

6. Streams Recording

6.1. Introduction

All the processing and storage parameters must have been set as described in the different steps of section "Configuration of XFlyStreamer"

Fields and buttons involved in the recording of streams are described in section "Stream Recording Commands" on page 28.

The recording of streams can start at different moments in time:

- immediately: by clicking the **Record** button,
- in the past: by setting a past value in the **TC IN** field, provided that the corresponding media is still available, and clicking the **Record** button,
- in the future: by setting a future value in the **TC IN** field and clicking the **Record** button.

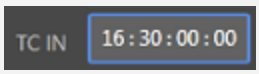
The streams will be recorded from all the recorder channels selected in the Servers list and present in the Channels area.

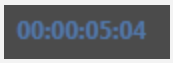
NEW ! For EVS servers set in TwinRec mode, a command applied to one of the recorder channels from a pair will automatically be applied to the associated channel. So, two streams will automatically be sent to the selected destination path(s).

NEW ! In case of error occurring during the processing of one of the jobs, both jobs will automatically be restarted by clicking one of the **Retry** buttons. See section "Display of Channels Area" on page 26.

6.2. Stream Recording Commands

All the user interface elements involved in the stream recording are described below.

Field / Button	Meaning
Server TC Field	Timecode reference of the server selected from the Servers list and displayed on a blue background. This field is not editable.
TC IN Field	This field is editable. Users may enter a timecode value which will be used as IN point to start the recording of the stream. The value can be in the past, provided that the corresponding media has not been overwritten, or in the future. The **TC IN** field is surrounded by a blue line when the value is set in the future: 

Field / Button	Meaning
TC OUT Field	This field is editable. Users may enter a timecode value which will be used as OUT point to stop the recording of the stream. The TC OUT value must be higher than the TC IN value and cannot results in a file duration longer than the maximum duration set in the **Max Duration** field.
E/E Button	This button appears next to the **TC IN** field only when this field is manually edited: It is disabled when a recording is in progress. It allows to clear the **TC IN** and **TC OUT** fields and to return to the current timecode.
Duration Field	This read-only field appears next to the **TC OUT** field in one of the following situations: • a stream is being recorded • a stream is scheduled in the future  The value represents the stream duration computed from the TC IN and TC OUT values defined, or, if TC OUT is not defined, it corresponds to the maximum duration set in the **Max Duration** field.
Record Button 	The behavior of the **Record** button depends on the TC IN value. • If no TC IN value has been defined or if it is set in the past, the **Record** button allows to instantly start the backup of the record trains from all the selected channels. The **Record** button lights red when the recording is in progress: • If the TC IN value has been set in the future, the **Record** button allows to schedule the recording of the streams from all the selected channels. The **Record** button becomes a **Schedule** button until the recording starts: As soon as the recording starts, the **Schedule** button turns into a red **Record** button.
Stop Button 	The **Stop** button allows to stop the recording of the streams from all the selected channels. The **Stop** button lights blue when the recording is in progress: If streams have been set in the future and the **Record** button has been clicked, the **Stop** button turns into a **Cancel Schedule** button:

Field / Button	Meaning
Stop Now Button	The **Stop Now** button appears as soon as the recording of a stream starts. It is used to stop immediately all the recordings. This may result in files with different durations. Users will then have the possibility to delete the files already recorded or to keep them.
Schedule Button	The **Schedule** button is displayed instead of the **Record** button as sson as a recording has been scheduled in the future. This button cannot be clicked.
Cancel Schedule Button	The **Cancel Schedule** button is used to cancel scheduled stream(s). This button is only available when streams have been set in the future and the **Record** button has been clicked. It replaces the **Stop** button.

6.3. How to Record Streams in the Past

To record streams from a past timecode, proceed as follows:

1. Enter a start timecode value in the **TC IN** field, which is in the past. The corresponding A/V material still need to be available.

   The **E/E** button is displayed next to the **TC IN** field.

2. (optional) Enter a stop timecode value in the **TC OUT** field.

   The file duration is displayed next to the **TC OUT** field. It is the time between the TC IN and the TC OUT. It cannot be longer than the maximum duration set in the **Max Duration** field.

3. Click the **Record** button .

Files immediately start to be recorded.

A red frame is displayed around each channel in the Channels area.

All selections and settings are disabled during the recording.

The **Record** button turns red

The **Stop** button turns blue and is available to stop the recording.

The **Stop Now** button is displayed.

6.4. How to Schedule the Recording of Streams

To schedule the recording of streams, proceed as follows:

1. Enter a start timecode value in the **TC IN** field, which is in the future.

   The **E/E** button is displayed and a blue line surrounds the **TC IN** field:

2. (optional) Enter a stop timecode value in the **TC OUT** field.

   The file duration is displayed next to the **TC OUT** field. It is the time between the TC IN and the TC OUT. It cannot be longer than the maximum duration set in the **Max Duration** field.

3. Click the **Record** button .

   The **Record** button becomes a **Schedule** button and the **Stop** button becomes a **Cancel Schedule** button .

   The file duration is displayed next to the **TC OUT** field. As no TC OUT value has been set, this duration corresponds to the maximum duration.

4. (optional) Click the **Lock** button if you want to prevent any modification until the recording starts.

To cancel the scheduled job before the recording starts, click the **Cancel Schedule** button. A message warns the users who will have to confirm cancellation.

As soon as the recording starts, the **Schedule** button turns into a red **Record** button , and the **Cancel Schedule** button turns into a blue **Stop** button .

6.5. Possible Ways to Stop Recording

When a file recording is on-going, it can be stopped in different ways.

- Click the **Stop** button .

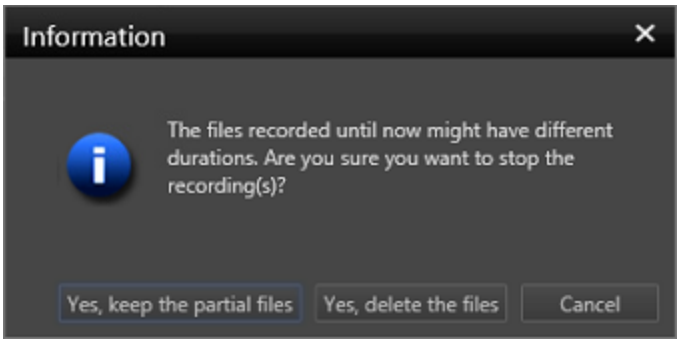
  The server timecode is grabbed and will be the TC OUT for all the recorded streams.

  The backup files need to close properly. As there is a delay between the live feed and the recorded files, it can however take some time before the job is finalized. During this time, the message "Finalizing..." will be displayed in the status area.

- Click the **Stop Now** button .

  This allows users to immediately stop the file recording. As there is a delay between the live feed and the recorded files, the files TC OUT will not be the live feed timecode and each file can have a different TC OUT.

  The following window is displayed:

  
  Information
The files recorded until now might have different durations. Are you sure you want to stop the recording(s)?
Yes, keep the partial files
Yes, delete the files
Cancel

  - Clicking **Yes, keep the partial files** stops the recording and saves the already recorded files with their defined auto filename. They can have different durations. Related metadata files are updated.
  - Clicking **Yes, delete the files** stops the recording and delete all the related files.

7. DB Maintenance

For DB maintenance, automatic scripts have been added in order to delete numerous GRAB jobs created during XFST operations and saved to XSQ Database.

1. These jobs can be deleted on a regular basis without affecting the XFST operations and in order to avoid unnecessary entries in the SQL database of XSquare.
2. Three scripts are added to your system during the installation of XFlyStreamer, those scripts cover the main workflows:
3. Grabs entries older than 24-hour are automatically deleted every day at 7 am.
4. Grabs entries older than 24-hour are automatically deleted at Windows startup.
5. Grabs entries older than 24-hour are deleted upon user request by clicking the icon saved to your desktop:

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